

EPA Region 5 Records Ctr.



295367

February 26, 2008

Mr. Sam Chummar, Remedial Project Manager
U.S. Environmental Protection Agency - Region 5
Superfund Division - Remedial Response Branch #1
77 W. Jackson Blvd. (SR-6J)
Chicago, IL 60604

Subject: Corrected Fill Sample Result
Operable Unit No. 5, Allied Paper, Inc./Portage Creek/Kalamazoo River Site
Plainwell Mill Banks Emergency Action

Dear Mr. Chummar:

This letter confirms that the metals analytical results sent to the U.S. EPA on January 31, 2008, for the imported fill soil have been found to have been mislabeled in the laboratory. The data in Table 1 (Attachment 1) is the correct characterization of metals concentrations in the imported fill soils.

A letter from TriMatrix Laboratories, Inc. (Attachment 3) explains and confirms the error in the original fill sample analysis. They have also provided photographs of the samples which we have attached to this letter (Attachment 2). In addition, we have attached the internal quality assurance nonconformance report of their investigation (Attachment 4) including the procedures that they have instituted to address the situation as well as the results of the re-analysis of the fill sample and re-analysis of the "Pad sample" which was erroneously reported as fill.

The photographs (Attachment 2), which clearly show that the wrong sample was tested, the analytical results that are more consistent with the Pad sample designated for disposal, and the re-analysis that matched the four other fill samples consistently establish that the fill material has now been appropriately characterized. For all future discussion and presentation of this sample result, we will report only the correct analytical data. Please contact me at 262-879-1212 if you have any questions or contact Jennifer Rice at TriMatrix Laboratories, Inc. directly at 616-940-4277.

Sincerely,

RMT, Inc.

Kathryn R. Huibregtse
Vice President

cmk/attachments

cc: Paul Bucholz, Michigan Department of Environmental Quality
Jennifer Hale, Weyerhaeuser Company
Jennifer Rice, TriMatrix Laboratories, Inc.

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Attachment 1
Table 1 – Fill Soil Analytical Results

Table 1
Fill Soil Analytical Results

	Part 201 Resd/Comm I Soil Stds			Fill Pile 1/3/2008	Fill Pile Re-run	Pit-1	Pit-2	Initial #1	Initial #2
	Background	GSI	Direct Contact						
Arsenic	5.8	70	7.6	7.4	4.7	6.6	6.2	4.2	5.8
Barium	75	ph/hdns	37,000	180	31	57	63	34	35
Cadmium	1.2	ph/hdns	550	1.4	<0.2	<0.2	<0.2	<0.2	<0.2
Chromium	18	ph/hdns	790,000	77	8.0	17	16	9.2	11
Lead	21	ph/hdns	400	240	8.4	10	10	8.6	10
Mercury	0.13	0.5	160	1.5	<0.05	<0.05	<0.05	<0.05	<0.05
Selenium	0.41	0.4	2,600	0.73	<0.2	<0.2	<0.2	<0.2	<0.2
Silver	1	0.1	2,500	0.56	<0.1	<0.1	<0.1	<0.1	<0.1

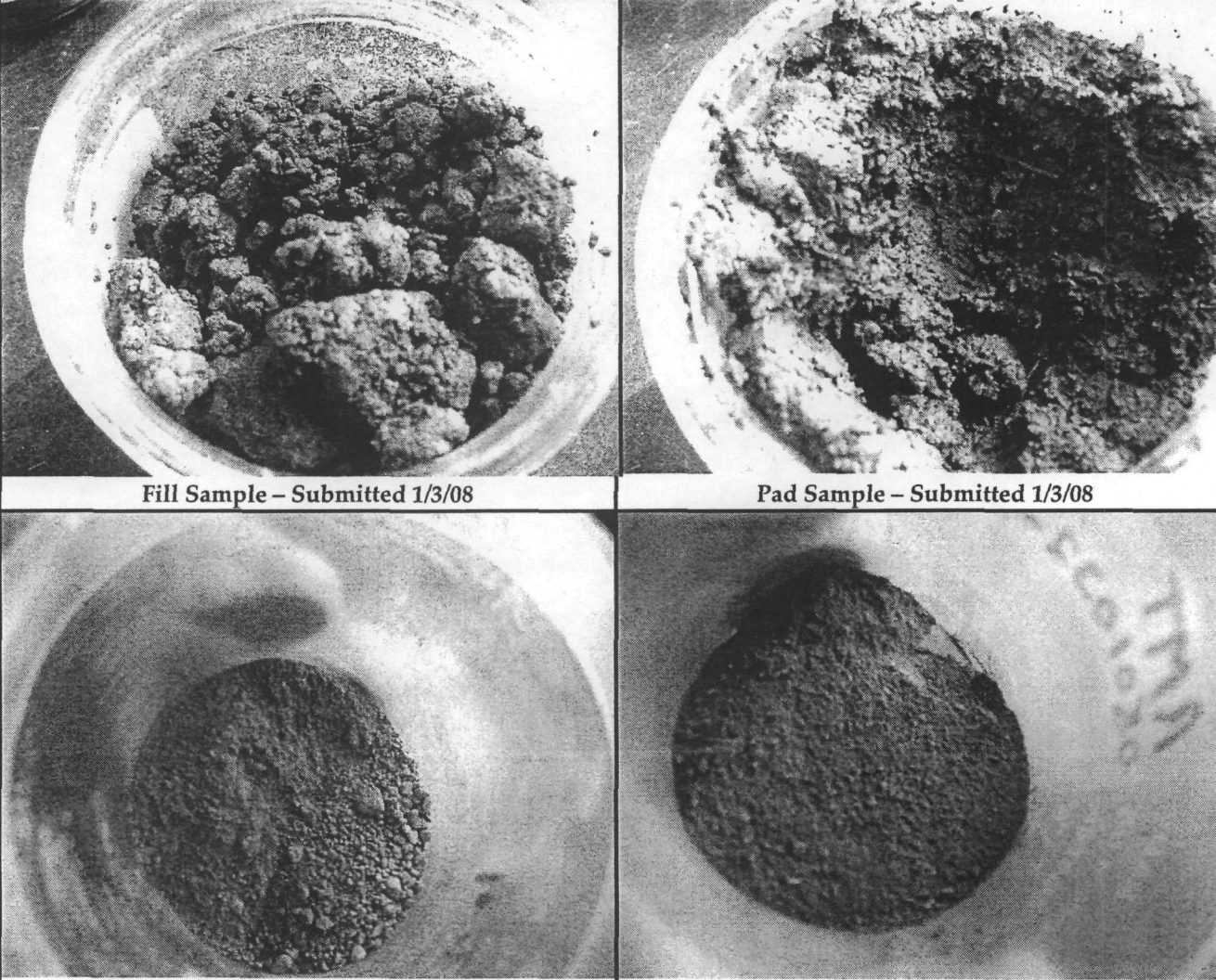
Bold = exceeds background

= exceeded GSI

Attachment 2

Photographic Log

Photographic Log

Client Name:		Site Location: Plainwell Fill & Pad Samples		Project No.: 00-05130.05
Photo No. 1-4	Date 2/22/08			
Description Photographs taken by TriMatrix and received by RMT on 2/22/08.				
		Fill Sample – Submitted 1/3/08	Pad Sample – Submitted 1/3/08	
		Dried Fill Sample – Re-Analyzed 2/12/08	Dried Sample - Analyzed 1/14/08 and Reported as Fill	

Attachment 3
Letter from TriMatrix Laboratory, Inc.



5560 Corporate Exchange Court SE
Grand Rapids, MI 49512

(616) 975-4500 • Fax (616) 942-7463

February 25, 2008

Ms. Kathy Huibregtse, Vice President
RMT, Inc.
150 Patrick Blvd., Suite 180
Brookfield, WI 53045

RE: Plainwell Mill

Dear Ms. Hubregtse:

This letter documents TriMatrix review of the metals analysis on a fill material sample performed for RMT, Inc. in January 2008. The fill sample, identified as "PM Fill" (TriMatrix sample number 0801032-01) was received by TriMatrix on January 3, 2008 and analyzed for mercury on January 8, 2008 for the remaining and January 14, 2008. The chain of custody showing the sampling dates and requested analyses is attached to this letter.

As the following paragraphs detail, the metals results for sample ID PM Fill were initially reported incorrectly. The metals results for this sample were higher than expected. Consequently, RMT collected additional samples, Initial-1, Initial-2, Pit-1 and Pit-2 for metals analysis. Based on the consistent results of these four (4) samples as well as the differences in PM-Fill, TriMatrix was requested by RMT to re-digest and re-analyze the PM-Fill sample. This sample was logged in with a new number (TriMatrix 0802085-01) and analyzed. The re-analysis results did not match the initial analysis but were more consistent with the other four samples. The lab results for the additional four samples are also included with this letter.

Based on these differences, TriMatrix was asked by RMT to investigate the discrepancy. Both the original sample and the dried portions of the initial and confirmation analysis were pulled and inspected by TriMatrix' Quality Assurance Manager. The original sample was light brown in color which matched the dried portion of the confirmation analysis. The color of the dried portion from the initial analysis was light gray in color. Clearly, the initial and confirmation samples were not the same. The only other solid sample received that day was also from RMT (PM-Pad). That sample was gray in color and the appearance matched that of the dried portion for the initial sample. Based on the quality control review, it was concluded that the PM-Pad was initially digested, analyzed and then incorrectly reported as PM-Fill, thus explaining the unexpected metals results. It was further concluded that the confirmation analysis was performed on the correct PM

Fill sample and the metals results for the re-analysis properly characterized the fill sample. Photographs of these samples have been included with this letter.

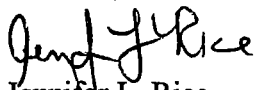
In accordance with our laboratory quality control program, a non-conformance investigation was initiated in response to this situation and is included with this letter. In response to this incident, we have already modified our metals sample recording procedures to eliminate the potential for a recurrence of this problem.

As a point of clarification, with regard to the organic results reported for this sample, the correct sample was analyzed and reported. For Volatile Organics (VOCs), there was a separate sample container collected which is stored in a refrigerator directly in the Volatile Lab. The Semi-Volatile, Pesticides and PCBs are all extracted and analyzed in a different lab area and by a different set of analysts. These organic analysts label all their glassware based on the sample/tag which is with it so it is highly unlikely the incorrect sample could have made it through our LIMS system to reporting.

Please feel free to contact me with any questions or if you need additional information. Also, please feel free to provide this letter and attachments to any agencies necessary.

On behalf of TriMatrix, I deeply apologize for all the problems this mistake has caused you and your client.

Sincerely,



Jennifer L. Rice
Project Chemist

Enclosure

ANALYTICAL REPORT

Client: **RMT, Inc. - Grand Rapids Office**
Project: Plainwell Mill
Client Sample ID: **Intial-1**
Lab Sample ID: **0802022-01**
Matrix: Soil
Percent Solids:

Work Order: **0802022**
Description: Laboratory Services
Sampled: 02/04/08 08:05
Sampled By: E. Vincke
Received: 02/04/08 14:00

Total Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	Bv	QC Batch
*Arsenic	4.2	0.20	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Barium	34	1.0	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Cadmium	<0.20	0.20	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Chromium	9.2	2.0	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Lead	8.6	1.0	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Mercury	<0.050	0.050	mg/kg dry wt.	1	USEPA-7471A	02/05/08	KLV	0801249
Selenium	<0.20	0.20	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Silver	<0.10	0.10	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274

*See Statement of Data Qualifications

ANALYTICAL REPORT

Client: RMT, Inc. - Grand Rapids Office	Work Order: 0802022
Project: Plainwell Mill	Description: Laboratory Services
Client Sample ID: Intial-2	Sampled: 02/04/08 08:10
Lab Sample ID: 0802022-02	Sampled By: E. Vincke
Matrix: Soil	Received: 02/04/08 14:00
Percent Solids:	

Total Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	Bv	QC Batch
Arsenic	5.8	0.20	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Barium	35	1.0	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Cadmium	<0.20	0.20	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Chromium	11	2.0	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Lead	10	1.0	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Mercury	<0.050	0.050	mg/kg dry wt.	1	USEPA-7471A	02/05/08	KLV	0801249
Selenium	<0.20	0.20	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Silver	<0.10	0.10	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274

ANALYTICAL REPORT

Client: **RMT, Inc. - Grand Rapids Office**
Project: Plainwell Mill
Client Sample ID: **Pit-1**
Lab Sample ID: **0802023-01**
Matrix: Soil
Percent Solids:

Work Order: **0802023**
Description: Laboratory Services
Sampled: 02/04/08 11:30
Sampled By: E. Vincke
Received: 02/04/08 14:00

Total Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	Bv	QC Batch
Arsenic	6.6	0.20	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Barium	57	2.0	mg/kg dry wt.	2	USEPA-6020A	02/06/08	DSC	0801274
Cadmium	<0.20	0.20	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Chromium	17	2.0	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Lead	10	1.0	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Mercury	<0.050	0.050	mg/kg dry wt.	1	USEPA-7471A	02/05/08	KLV	0801249
Selenium	<0.20	0.20	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Silver	<0.10	0.10	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274

ANALYTICAL REPORT

Client: **RMT, Inc. - Grand Rapids Office**
 Project: Plainwell Mill
 Client Sample ID: **Pit-2**
 Lab Sample ID: **0802023-02**
 Matrix: Soil
 Percent Solids:

Work Order: **0802023**
 Description: Laboratory Services
 Sampled: 02/04/08 11:35
 Sampled By: E. Vincke
 Received: 02/04/08 14:00

Total Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	Bv	QC Batch
Arsenic	6.2	0.20	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Barium	63	2.0	mg/kg dry wt.	2	USEPA-6020A	02/06/08	DSC	0801274
Cadmium	<0.20	0.20	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Chromium	16	2.0	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Lead	10	1.0	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Mercury	<0.050	0.050	mg/kg dry wt.	1	USEPA-7471A	02/05/08	KLV	0801249
Selenium	<0.20	0.20	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274
Silver	<0.10	0.10	mg/kg dry wt.	1	USEPA-6020A	02/06/08	DSC	0801274



5560 Corporate Exchange Court SE Grand Rapids, MI 49512
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Chain of Custody Record

COC No. 122702

Analyses Requested

Page 1 of 1

← PRESERVATIVES

- A NONE pH~7
- B HNO₃ pH<2
- C H₂SO₄ pH<2
- D 1+1 HCl pH<2
- E NaOH pH>12
- F ZnAc/NaOH pH>9
- G MeOH
- H Other (note below)

Client Name RMT, Inc	Project Name Plainwell mill
Address 2025 East Beltline Ave SE. Suite 402 Grand Rapids, MI 49546	Client Project No./P.O. No. 5130.04
Phone 616 915 3685 Fax 616 975 1098	Invoice No. <input checked="" type="checkbox"/> Client <input type="checkbox"/> Other (comments)
Contact/Report To Jennifer Overvoorde	

Sample ID	Cooler ID	Sample Date	Sample Time	C O M P	G R A B	Matrix	Number of Containers Submitted										Total	Sample Comments
							1	2	3	4	5	6	7	8	9	10		
1		PM-Fill	1/3/08	1422	X	X	Soil	1	2								3	only VOC is grab
2		PM-Pad	1/3/08	1427		X	Soil	1	2								3	
3		PM Pad																
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Sampled By (print) Kevin Kyrins-Goss, Scot Middlebrook	How Shipped? <input checked="" type="checkbox"/> Hand <input type="checkbox"/> Carrier	Comments Line 1: 1 2oz glass, 2 500ml glass Line 2: 1 2oz glass, 2 500ml glass.
Sampler's Signature Kevin Kyrins-Goss, Scot Middlebrook	Tracking No.	
Company RMT	1. Relinquished By Scot Middlebrook Date 1/3/07 Time 1920	2. Relinquished By Date Time
	1. Received By Date Time	3. Relinquished By Date Time
	2. Received By Date Time	

Attachment 4
Nonconformance Report from
TriMatrix Laboratory, Inc.



Non-Conformance Investigation Report

Client:	RMT	Project Number:	0801032/0802085		
Sample Number(s):	0801032-01	Date Initiated:	2/14/08	Date Due:	2/15/08
Initiated By:	Jennifer Rice	Document Control Number:	nc021508a		
Investigation Resulting From:	<input type="checkbox"/> Internal Observation	<input checked="" type="checkbox"/> Client Complaint	<input type="checkbox"/> Audit	<input type="checkbox"/> Failing PT Sample	

I. Area of Non-Conformance:

- ☐ Sample Receiving / Storage ☐ Bottle Prep ☐ Client Services / Reporting ☐ Other _____
- ☒ Inorganic (Wet Chemistry / Metals) Laboratory ☐ Organic (Volatile / Semi-Volatile / Extraction) Laboratory

II. Description of Non-Conformance:

Two samples were received for metals analysis, client ID PM-Fill (TriMatrix ID -01) and client ID PM-Pad (TriMatrix ID -02). Sample -01 was to be analyzed for total metals, and -02 for TCLP metals. Based on higher than expected results for sample number -01 and four corresponding samples, the client requested the sample be re-analyzed. Our re-analysis of the sample yielded results that were more indicative of those expected. The client is questioning whether the correct sample was initially analyzed and requested TriMatrix to conduct an internal investigation.

III. Explanation of Investigation into Non-Conformance:

A review of all documented steps, including sample log-in and labeling, sub sampling and drying, sample digestion, instrumental analysis, and final data review and reporting, revealed that all steps were performed in accordance to documented laboratory protocols. In response to this non-conformance the original samples and the dried sample aliquot of TriMatrix ID -01 were removed from storage for visual inspection. Sample -01 was light tan in color where sample -02 was a dark gray. The dried aliquot (labeled sample -01) utilized for the totals metals digestion, was similar in color (dark gray) to the sample -02. In response to our investigation a second aliquot of sample-02 was re-logged and prepared for analysis. Based on the results of the re-analysis and a visual inspection of the re-dried sample, we have concluded that the results obtained from our original testing, were generated from the wrong sample. A discussion of sample handling procedures for this initial step revealed that the container used for drying was labeled using a work-order report prior to removing the sample from storage. Because the analyst did not transfer the sample number to the drying container from the original sample bottle, we have concluded that the analyst removed the incorrect sample from storage during the sub sampling and drying procedure.

Initials: [Signature] Date: 2/25/08

IV. Resolution:

Although all TriMatrix receipt and analytical protocols were followed, all future sub sample containers will be labeled directly from the original sample bottles. If the wrong sample is selected from storage, the pre-treatment information will be rejected by our laboratory information management system.

Initials: [Signature] Date: 2/25/08

V. Follow-Up (if required):

Verify that the new protocol is being followed.

Initials: TS

Date: 2/25/08

QA Manager: [Signature]

VI. Reviewed By:

Area Manager: Margie A Scott

Date Completed: 02/25/08



ANALYTICAL REPORT

Client: RMT, Inc. - Grand Rapids Office

Project: Plainwell Mill

Client Sample ID: PM - Fill

Lab Sample ID: 0801032-01

Matrix: Soil

Percent Solids:

Work Order: 0801032

Description: Laboratory Services

Sampled: 01/03/08 14:22

Sampled By: KKG/SM

Received: 01/03/08 19:20

ORIGINAL

Total Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	Bv	QC Batch
Arsenic	7.4	0.10	mg/kg dry wt.	1	USEPA-6020A	01/14/08	DSC	0800172
*Barium	180	5.0	mg/kg dry wt.	5	USEPA-6020A	01/14/08	DSC	0800172
Cadmium	1.4	0.20	mg/kg dry wt.	1	USEPA-6020A	01/14/08	DSC	0800172
*Chromium	77	10	mg/kg dry wt.	5	USEPA-6020A	01/14/08	DSC	0800172
*Lead	240	10	mg/kg dry wt.	10	USEPA-6020A	01/14/08	DSC	0800172
*Mercury	1.5	0.50	mg/kg	5	USEPA-7471A	01/08/08	JMF	0800193
*Selenium	0.73	0.20	mg/kg dry wt.	1	USEPA-6020A	01/14/08	DSC	0800172
Silver	0.56	0.10	mg/kg dry wt.	1	USEPA-6020A	01/14/08	DSC	0800172

*See Statement of Data Qualifications



ANALYTICAL REPORT

Client: **RMT, Inc. - Grand Rapids Office**
Project: **Plainwell Mill**
Client Sample ID: **PM - Fill**
Lab Sample ID: **0802085-01**
Matrix: **Soil**
Percent Solids:

Work Order: **0802085**
Description: **Laboratory Services**
Sampled: **01/03/08 14:22**
Sampled By: **KKG/SM**
Received: **02/07/08 14:53**

RE-ANALYSIS

Total Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Arsenic	4.7	0.10	mg/kg dry wt.	1	USEPA-6020A	02/12/08	KLV	0801401
*Barium	31	1.0	mg/kg dry wt.	1	USEPA-6020A	02/12/08	KLV	0801401
Cadmium	<0.20	0.20	mg/kg dry wt.	1	USEPA-6020A	02/12/08	KLV	0801401
Chromium	8.0	2.0	mg/kg dry wt.	1	USEPA-6020A	02/12/08	KLV	0801401
Lead	8.4	1.0	mg/kg dry wt.	1	USEPA-6020A	02/12/08	KLV	0801401
*Mercury	<0.050	0.050	mg/kg dry wt.	1	USEPA-7471A	02/12/08	DSC	0801411
Selenium	<0.20	0.20	mg/kg dry wt.	1	USEPA-6020A	02/12/08	KLV	0801401
Silver	<0.10	0.10	mg/kg dry wt.	1	USEPA-6020A	02/12/08	KLV	0801401

*See Statement of Data Qualifications